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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BROWN, RUEBEN M	

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,935	SCHILLER ET AL.	
	Examiner	Art Unit	
	Reuben M. Brown	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/25/05 have been fully considered but they are not persuasive. Applicant argues on page 7 that, "Rackman fails to disclose or suggest the claimed 'headend adapted to periodically generate a group identifier for broadcast to a group of subscribers associated with the group identifier. That is, the transmission of Rackman is not a broadcast". Examiner respectfully disagrees, with applicant's characterization of the reference. The messages transmitted in Rackman are broadcast to all of the terminals in the system, however only the terminal(s) to which the message is addressed, which act upon the message, see Rackman col. 12, lines 65-68. In particular, Rackman teaches that the messages (including that define subscriber addresses) are transmitted (i.e., broadcast) on the 108-112 MHz channel, which is an RF broadcast channel, along with the video broadcasts on the video channels, within the 54-270 MHz spectrum, see col. 6, lines 4-25. However, again only the subscriber interface unit to which the message is addressed, will extract the message.

With respect to claims 11 & 18, applicant argues, on page 8 that in Rackman, "the terminal address is not distinct from the group identifier". Applicant goes on to discuss how Rackman teaches that the addresses comprise 10 bits used for the group ID, (i.e., of the group's subscriber interface 40, see col. 8, lines 47-558) and the last 4 bits of the 14 bit address, are used

to identify the particular subscriber terminal, serviced by the subscriber interface. It is pointed out that each subscriber terminal(s) in Rackman, serviced by a particular subscriber interface will have the same 10 bit group ID, and will be distinguished from the other subscriber terminals in the group by the individual 4 bit terminal ID, see col. 3, lines 3-14.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rackman, (U.S. Pat # 4,002,843), in view of Suzuki, (U.S. Pat # 5,790,170).

Considering claim 10, the claimed VOD system, comprising 'a headend adapted to periodically generate a group identifier for broadcast to a group of subscribers associated with the group identifier' is met by the discussion in Rackman that subscriber addresses are broadcast on the 108-112 MHz channel, after which each particular subscriber is enabled to transmit any pending upstream message to the central control 10, see col. 6, lines 5-24. If the subscriber is attached to a subscriber interface unit, such as subscriber interface unit 40, which services

multiple subscriber terminals, than the address of the message contains the group ID, as well as the specific terminal ID to which the message is addressed.

As for the additional claimed feature of 'the headend being further adapted to receive a request for VOD, data including the group identifier' and 'to enable one or more modulators associated with the group of subscribes to distribute the VOD data', Rackman does not discuss the details of a VOD system, and does not discuss assignment of any modulators to a group of subscribers. Nevertheless Suzuki, which is directed to a VOD system, teaches that transmission to subscribers may be sent through any one of the 15 input terminals of a node controller corresponding to the section addressee subscriber, see Abstract; col. 5, lines 49-64; col. 7, lines 44-49; col. 12, lines 49-67 thru col. 13, lines 1-6. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Rackman with features of Suzuki, at least for the advantages of more efficiently managing the transmission of VOD programming to subscribers, as taught by Suzuki col. 4, lines 1-34.

Considering claim 11, the claimed 'headend further adapted to receive as part of the request, subscriber terminal identifier distinct from the unique group identifier' is broad enough to read on the 4 bit terminal ID attached to the 10 bit subscriber interface identifier, this 4 bit terminal ID is used to distinguish the plurality of subscriber terminals attached to a particular subscriber terminal, see col. 8, lines 48-58 & col. 12, lines 64-68.

Considering claims 12-13, Rackman does not teach that the address information is transmitted as part of an MPEG program stream. Official Notice is taken that at the time the invention was made, MPEG streams were well known in the art, including for transmitting data to subscribers. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Rackman to transmit data over an MPEG stream, at least for the well-known benefit of the efficient two-way interactivity of MPEG protocols.

4. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, in view of Rackman.

Considering claim 14, the claimed video on demand headend for distributing VOD to one or more groups of subscribers, comprising;

'a video server' reads on the video server 21 of Suzuki, (Fig. 4 & col. 6, lines 24-44).

'an application server connected to the video server' is broad enough to read on the HE controller 24, which controls the operations of the video server and other components of the headend, (Fig. 4 & col. 6, lines 24-67).

'application server adapted to extract a subscriber group ID received in a request for VOD data from a subscriber', Suzuki teaches that when a subscriber requests a video program, that the request includes a subscriber ID and ID of the requested program, (col. 13, lines 1-5), but not a group ID. However, Rackman teaches transmitting messages to subscribers, which enable them to transmit messages upstream to the headend. These messages includes the subscriber address, col. 6, lines 34-50. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Suzuki with the feature of transmitting a subscriber's terminal address, along with request for service, for the benefit verification purposes identifying the subscriber, at least including the 10 bit subscriber interface unit to which the subscriber terminal is attached, as taught by Rackman (col. 6, lines 34-68; col. 7, lines 19-23 & col. 8, lines 50-53).

'video server adapted cooperate with the application server, to identify one or more modulators servicing the group of subscribers to which the subscriber belongs', reads on the disclosure in Suzuki that ATM exchanger 23 switches the requested digital data to any one of the terminals 104_1 to 104_{15} that correspond with section addresses of the subscriber. These video signals are then transmitted to the appropriate modulator such as QAM modulator 105_1 to 105_{15}, (col. 7, lines 40-67 & Fig. 5).

The additionally the claimed feature of, 'periodically communicate the subscriber group identifier to subscriber terminals associated with the group identifier' is met by the discussion in Rackman, (col. 1, lines 49-67; col. 6, lines 33-51; col. 12, lines 65-68).

Considering claim 15, see Rackman, col. 6, lines 5-50.

Considering claims 16-17, the instant claims recite subject matter that was mentioned above in the rejection of claims 12-13, and is likewise analyzed.

5. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rackman & Suzuki, further in view of Chawla, (U.S. Pat # 6,023,731).

Considering claim 18, the claimed VOD delivery method, comprises subject matter that corresponds with subject matter mentioned above in the rejection of claim 10, and is likewise treated. Claim 18 additionally recites, 'such that the subscriber group ID does not form a part of the unique subscriber address'. The additional limitation is still met by Rackman, since the group ID is a 10 bit code, and the subscriber terminal is separate 4 bit code. In other words, the bits used to identify the group ID are separate and distinct from the bits used to identify the terminal address itself, col. 8, lines 47-58.

As for the further claimed feature of, 'communicating a program number of the VOD data to the particular subscriber equipment, to enable the particular subscriber equipment to tune to the VOD data', Suzuki teaches the subscriber terminal tuning to the channel to received the VOD data, but does not explicitly state that tuning is based on the a transmitted program number, Nevertheless, Chawla teaches that the headend may transmit the PID to the subscriber terminal

which causes the subscriber terminal to tune to the appropriate channel to receive the requested data. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Rackman & Suzuki, with teachings of Chawla, transmitting the program number to the subscriber, at least for the advantage of obviating the need for the subscriber to find the channel on which the program is transmitted.

Considering claim19, the claimed subject mater is met by the combination of Rackman & Chawla.

6. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chawla, in view of Rackman.

Considering claim 20, the claimed subscriber terminal comprising;

'a means for receiving a program stream including a group ID, and for tuning to the program stream and extracting the group ID' is met by the combination of Chawla & Rackman. Chawla teaches transmission of subscriber selected programming to a particular subscriber using program stream technology, but does not teach that the information includes a group ID. Nevertheless, Rackman teaches a system wherein a single subscriber interface services multiple subscriber terminals, which requires that messages and data transmitted o the subscriber

terminals include the address of the subscriber interface, which reads on the claimed group ID, see col. 3, lines 1-15; col. 6, lines 4-20. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Chawla with the feature of transmitting group ID, at least for the desirable benefit of reducing the overall cost of the system, as taught by Rackman, since each subscriber terminal does not have its own interface unit.

As for, 'means for including the group ID in a request for VOD, and means for receiving the VID data'; Rackman teaches that when the subscriber terminal responds to the control center 10, the response includes the address, which includes the group ID, see col. 6, lines 42-51.

Considering claim 21, the claimed, 'means for receiving a program number for the VOD, and for tuning to a frequency associated with the program number', is broad enough to read on the subscriber tuning to whatever channel is broadcasting the requested video programming. Also, Chawla teaches that the MPEG stream includes a plurality of programs, and the headend transmits the PID, which includes the channel on which the desired programming is located, which enabled the decoder to tune to the appropriate channel in order to retrieve the programming, see col. 8, lines 5-58. Chawla furthermore teaches that the headend may communicate the channel number to the decoder, in order to set the channel on which the video programming will be transmitted/received, see col. 6, lines 49-54.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Shen Teaches multiplexing several programs over a single channel.

B) Auld Teaches broadcast of message to a group of subscribers.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:
(571) 273-8300, (for formal communications intended for entry)
Or:
(571) 273-7290 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F (9:00-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown

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